

PATENT
Atty Docket No. 1006-018/MMM

In the claims:

1. (Currently amended) In a multimedia computer amplified speaker system having a speaker driver for transducing into sound an audio electrical signal that has an amplitude, the improvement comprising:

a dynamic bass equalization circuit with a second or higher order active filter having a dynamically adjusted gain and frequency response that vary with the amplitude of the audio electrical signal, the active filter including an amplifier with a negative feedback path that includes a parallel pair of opposed diodes that provide the dynamically adjusted gain and frequency response.
2. (Original) The speaker system of claim 1 in which the active filter includes a Sallen-Key high pass filter.
3. (Cancelled)
4. (Cancelled)
5. (Currently amended) The speaker system of claim 4 claim 1 in which the amplifier includes an output and the negative feedback path includes a resistor connected in series with the parallel pair of opposed diodes and the amplifier output.
6. (Currently amended) The speaker system of claim 4 claim 1 in which the amplifier includes a positive feedback path having a voltage divider that voltage divides a feedback voltage.
7. (Original) The speaker system of claim 6 in which the amplifier includes an output and the negative feedback path includes a resistor connected in series with the parallel pair of opposed diodes and the amplifier output.
8. (Original) The speaker system of claim 1 in which the active filter includes an amplifier with a positive feedback path having a voltage divider that voltage divides a feedback voltage.

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9. (Original) The speaker system of claim 1 in which the dynamic bass equalization circuit provides a bass equalized audio signal that is delivered to a sub-woofer speaker driver.

10. (Original) The speaker system of claim 1 in which the dynamic bass equalization circuit provides a bass equalized audio signal that is delivered to a full-range speaker driver.

11. (Currently amended) In a multimedia computer amplified speaker system having a speaker driver for transducing into sound an audio electrical signal that has an amplitude, the improvement comprising:

a dynamic bass equalization circuit with a second or higher order Sallen-Key high pass filter having a dynamically adjusted gain and frequency response that vary with the amplitude of the audio electrical signal, the active filter including an amplifier with a negative feedback path that includes a parallel pair of opposed diodes that provide the dynamically adjusted gain and frequency response.

12. (Cancelled)

13. (Cancelled)

14. (Currently amended) The speaker system of ~~claim 13~~ claim 11 in which the amplifier includes an output and the negative feedback path includes a resistor connected in series with the parallel pair of opposed diodes and the amplifier output.

15. (Currently amended) The speaker system of ~~claim 13~~ claim 11 in which the amplifier includes a positive feedback path having a voltage divider that voltage divides a feedback voltage.

16. (Original) The speaker system of claim 15 in which the amplifier includes an output and the negative feedback path includes a resistor connected in series with the parallel pair of opposed diodes and the amplifier output.

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17. (Original) The speaker system of claim 11 in which the active filter includes an amplifier with a positive feedback path having a voltage divider that voltage divides a feedback voltage.

18. (Original) The speaker system of claim 11 in which the dynamic bass equalization circuit provides a bass equalized audio signal that is delivered to a sub-woofer speaker driver.

19. (Original) The speaker system of claim 11 in which the dynamic bass equalization circuit provides a bass equalized audio signal that is delivered to a full-range speaker driver.

20-30. (Cancelled)